

Capstone Industry Council Meeting

May 10, 2006

Capstone Phase III
Industry Council Meeting



Federal Aviation
Administration

Capstone



Agenda

➤ **0800-0945** **Information Sharing**

- | | |
|----------------------------------|----------------|
| – Opening | Sue Gardner |
| – Technical Status Update | Mark Olson |
| – Operations Status Update | Ray Collins |
| – FAA JRC Planning Status Update | Donna Whitlock |
| – WAAS Update | JoAnn Ford |
| – Capstone Coalition Update | Felix Maguire |

➤ **0945-1000** **Industry Feedback (Roundtable)**

Opening:

Status of ATO-E Safety Assessment

- FAA took all ADS-B surveillance data out of ATC displays on March 23, 2006
- Safety Analysis Team gathered data at Anchorage Center April 18-20
- Some services restored:
 - Bethel Tower display
 - Flight Explorer for flight monitoring
 - Archiving flight tracks for search & rescue
- No decision on controller use yet

Opening (continued)

- Rick Day (ATO-E Vice President) Visit in April
- Status of FAA Response to AACCC Letter
- Juneau & Ketchikan Operator Meeting Status
- New Capstone FAQs

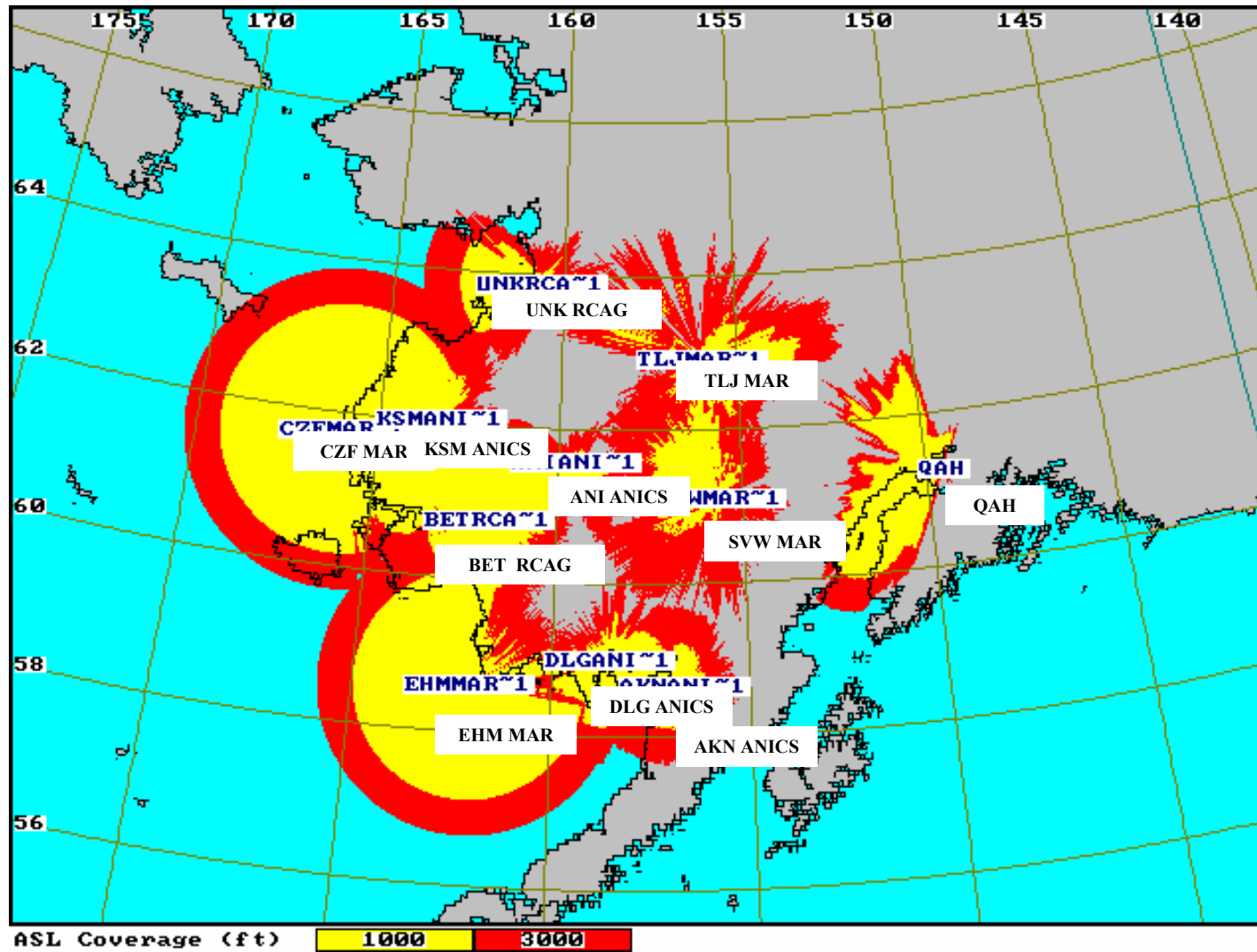
Technical Status Update

Mark Olson

Recent Events

- ATO-E Safety Assessment (Apr 18-20)
 - Visited ZAN and CPO with questions regarding processes used for implementing
 - Awaiting report
- Fleet Monitoring
 - Connected 10 Y-K Delta Sites to Volpe on April 21 (available on Flight Explorer or any other commercially available vendor)
- Bethel Tower Display
 - ADS-B feed re-established April 20
- FIS-B Product Enhancement Planning
 - TWG meeting in CPO Wed 1:30 – 3:00 PM

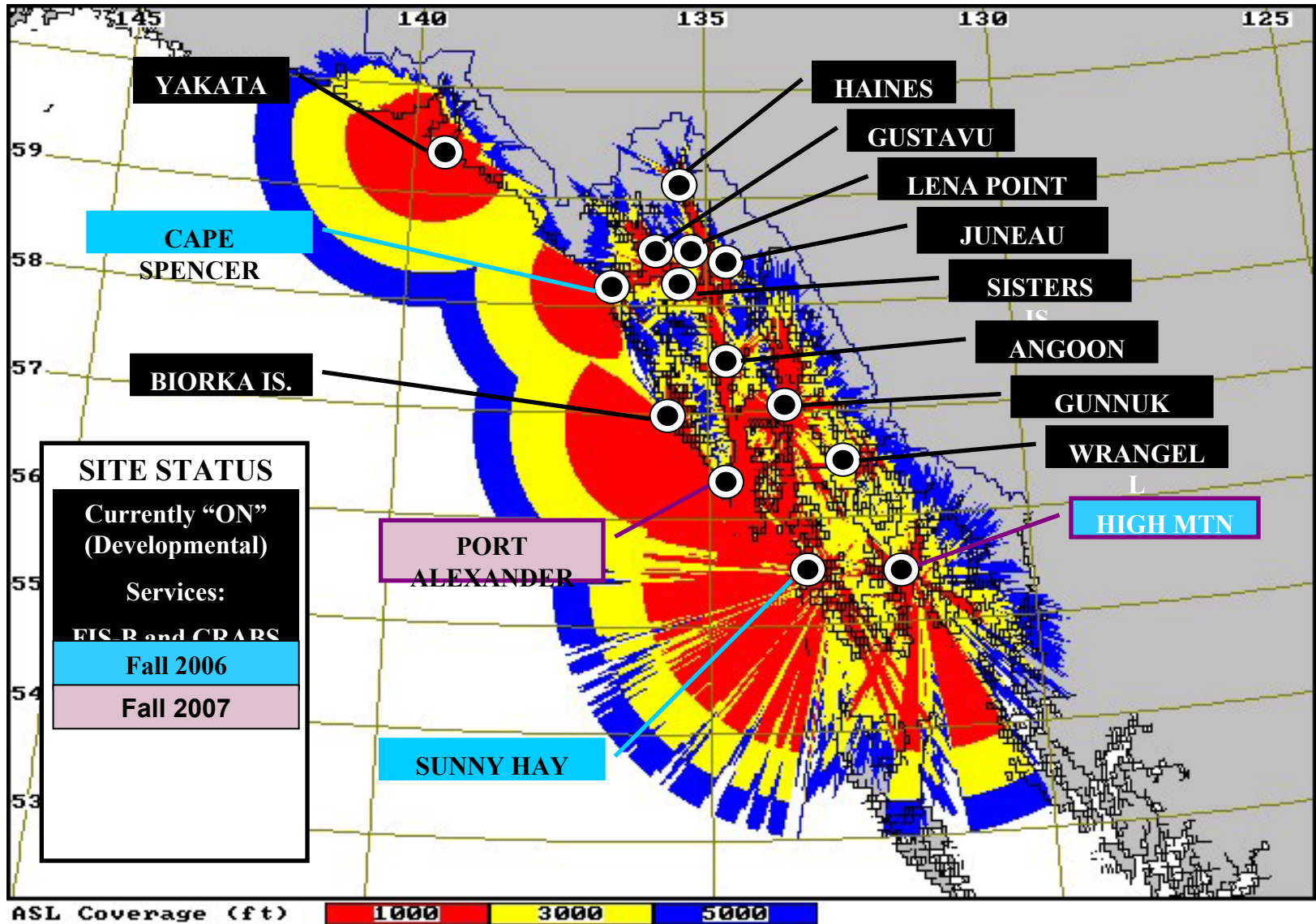
PHASE I GBT SITES



STATUS OF SERVICES

	ADS-B Surveillance	FIS-B	TIS-B	CRABS	VOLPE / Flight Explorer
Phase I: Y-K Delta					
Bethel	% O/S	X	N/A	X	X
Aniak	% O/S	X	N/A	N/A	X
St. Mary's	% O/S	X	N/A	N/A	X
Dillingham	% O/S	X	N/A	N/A	X
King Salmon	% O/S	X	N/A	N/A	X
Unalakleet	# TBD	X	N/A	N/A	X
Sparrevohn	# TBD	X	N/A	N/A	X
Tatalina	# TBD	X	N/A	N/A	X
Cape Romanzof	# TBD	X	N/A	N/A	X
Cape Newenham	# TBD	\$ O/S	N/A	\$ O/S	\$ O/S
Site Summit	Spring '06	X	X	X	N/A
X = Available N/A = Not Available					
% O/S = Out of Service. On 3/24/06, ADS-B surveillance terminated at the direction of the Vice President for En Route and Oceanic Services (ATO-E). Schedule and plan for restoral has not been established.					
# TBD = Current date is unknown - awaiting ATO-E decision.					
\$ O/S = Out of Service. Cape Newenham - wind damage to satellite communications facility.					

PHASE II GBT SITES

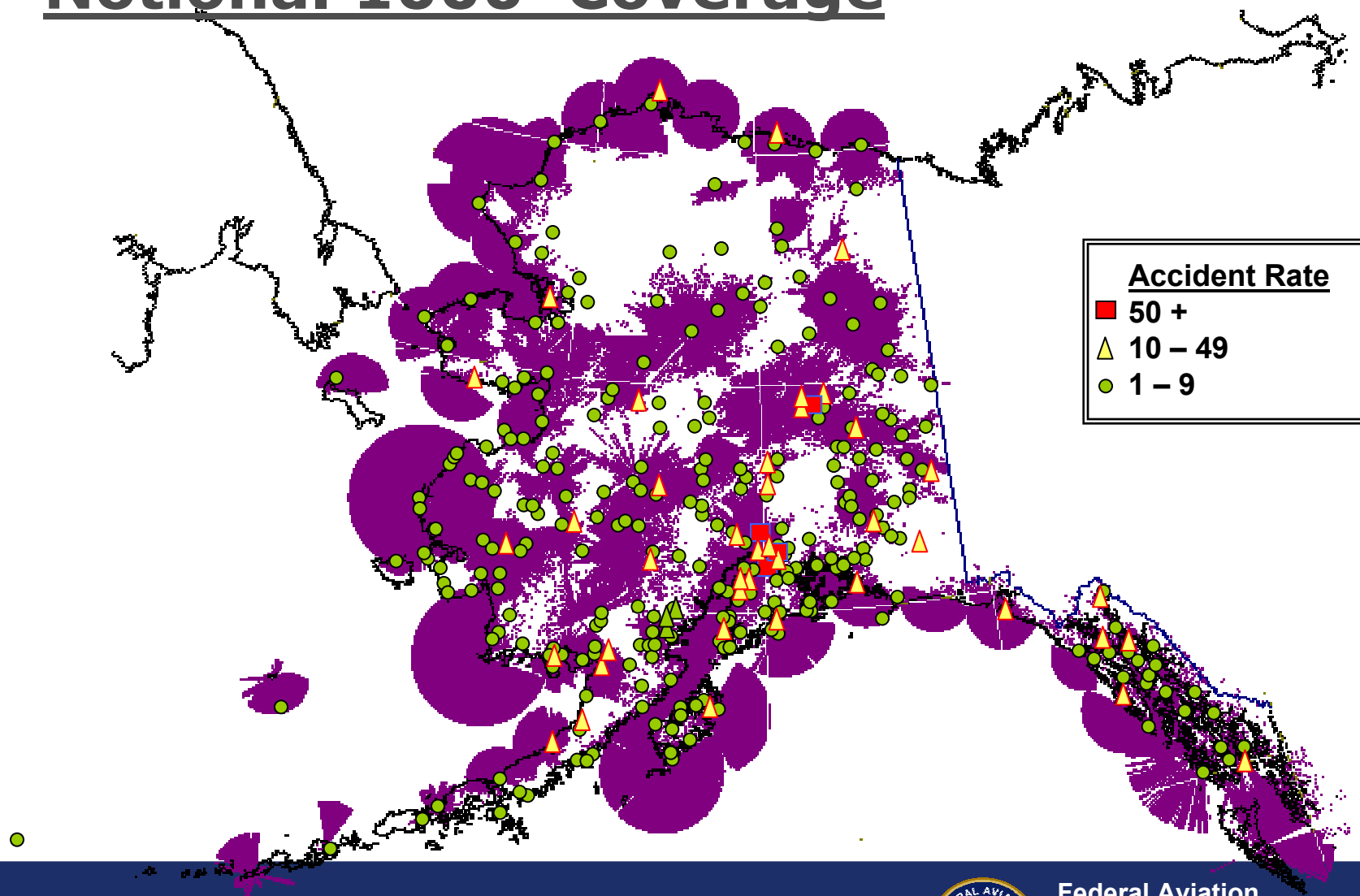


STATUS OF SERVICES

	ADS-B Surveillance	FIS-B	TIS-B	CRABS	VOLPE / Flight Explorer
Phase II: Southeast					
Juneau	Spr '06	X	N/A	X	Spr '06
Yakutat	Sum '06	X	N/A	X	Sum '06
Sisters Island	Sum '06	X	N/A	X	Sum '06
Gustavus	Sum '06	X	N/A	X	Sum '06
Lena Point	Sum '06	X	N/A	X	Sum '06
Biorka	Sum '06	X	N/A	X	Sum '06
Gunnuk	Sum '06	X	N/A	X	Sum '06
Wrangel	Sum '06	X	N/A	X	Sum '06
Angoon	Sum '06	X	N/A	X	Sum '06
Haines	Sum '06	X	N/A	X	Sum '06
Sunny Hay	Fall '06	Fall '06	N/A	N/A	Fall '06
Cape Spencer	Fall '06	Fall '06	N/A	N/A	Fall '06
High Mountain	Fall '06	Fall '06	N/A	N/A	Fall '06
Port Alexander	Fall '07	Fall '07	N/A	N/A	Fall '07
X = Available N/A = Not Available					

Statewide – 80 of 85 Sites

Notional 1000' Coverage



Operations Status Update

Ray Collins

Chelton 6.0B Software Upgrade

- UAA just received Chelton materials to begin training development
- 164 IDUs memory upgraded (< 20 aircraft left)
- Software certification testing lags; 25% of where it should be. Chelton taking steps:
 - Additional testers with IBM license being sought
 - Increase from one shift for testing to two shifts
 - Changing computer set-ups

Capstone SE Installations

Status as of May 10, 2006

Chelton:	5 In progress	5 Remaining	Tot: 100
Garmin F/W:	1 In progress	3 Remaining	Tot: 39
Garmin Hel:	3 In progress	4 Remaining	Tot: 19
GDL90 Ret:	3 In progress	0 Remaining	
GDL-IDU :	2 In progress	14 Remaining	

Helos: 9 carry-overs being considered for next year
(1 Coastal, 8 Temsco)

Issues in Y-K Delta

- N715HE (Caravan) defaults to “1200”
- Two acft with NIC=0 reported Feb 1-Apr 13 (JHU report)

Remaining Transponder-Equipped Aircraft Needing Garmin 5.7 Software in Y-K Delta

Estimate 14 T/E aircraft remain uninstalled;
9 additional to be installed by May 22,
remainder by May 29

JUNEAU Operator Issues and Status

Issue	OPR	Due Date	Status
Chelton 6.0B Training.	Leonard Kirk		UAA, Leonard, is waiting on required information from Chelton in order to complete the training documentation. The training classes will not be able to be taught until the software is approved and released by ACO.
SOW - Continued Maintenance in Juneau.	Dan Stapleton		SOW sent to Nancy Eckroth for review and she sent it to Legal on 5/2/06
SOW - FITS Pilot and TAA Training.	Larry Hawkins		Done and funding provided. Waiting for Sue to review and provide comments and or changes to Larry. Then it will go to FAA contracting for final processing with UAA.
Make a plan for operator use of training simulators.	Leonard Kirk	04/20/06	
Need to look into purchasing additional training simulators.	Dennis Gerstung		PR to purchase 4 training simulators for \$70,000 completed on 4/24/06.
Need to look into getting a projector for use w/ the training.	Leonard Kirk		I think this pertained to the Capstone digital projector. It didn't work well during the SE briefings.
CPO to invite Steve Turner (Juneau ATCT) and the ATC tower staff to avionics training during next training session in JNU.	Leonard Kirk		
Operators to provide suggestions for better Phase III GBT placement to Leonard Kirk (TWG Chair) by e-mail.			
CPO to initiate a new activity to provide relief on additional MMEL items (i.e., encoder, OAT probe).	Dan Stapleton		Began search for alternatives 5/5/06
CPO to explore whether WAAS prediction is required for ops specs (see August for details).	August Asay		
Operators to use "Capstone Difficulty Reporting Card" to report problems in the future. Operators can give these cards to Jimmy Wright, Steve Thompson, Leonard Kirk or Sue Gardner. Can get these cards from Jimmy Wright.	Dan Stapleton Jim Wright		Jim Wright is other person to furnish these.
Operators desire that the pilot be able to set individual preferences for the map scale range and for it to NOT change automatically, unless set into an automatic change mode. Leonard to discuss with Sam Seri (Garmin manager).	Leonard Kirk Dennis Gerstung Larry Hawkins		On 3/24/2006 Capstone personnel explained and physically demonstrated, in a TEMSCO Capstone equipped helicopter, that this is a configurable feature on the MX-20 and may be changed by the pilot to fit their desired configuration. Mr. Horton understood the procedure and seemed satisfied with the explanation presented. See trip report dated 3/24/06. Once familiarity of the equipment is obtained through additional simulator time and training, most of their concerns will be negligible.
CPO to put Garmin Phase II capabilities into training simulator.	Dennis Gerstung		
Four MX20 spares is not sufficient for SE. Need to acquire more spares.	Dennis Gerstung Larry Hawkins		PR's to purchase 4 spare avionics suites for a total of \$74,744 completed on 4/27/06.
Terrain blanks out under 300 feet. Software needs to be changed. Sue to talk with Sam Seery.	Sue Gardner Dennis Gerstung Larry Hawkins		It does not blank out; it turns red like it is suppose to when in the terrain only mode because the aircraft is close to the ground. The pilot needs to use other map modes other than the terrain map when maneuvering this close to the ground. We demonstrated the split screen mode and others to TEMSCO durring our visit as outlined in the trip report date 3/24/06.

KETCHIKAN Issues and Status

Issue	OPR	Due Date	Status
Capstone to provide 6.0B software informally to allow operators to get a sense of the new software. However, formal training can't start until 6.0B is officially delivered.	Steve Thompson		Steve said he would provide 6.0 software to interested operators
CPO will consider GBT site locations at (1) Mountain Point and (2) BOCA for this summer.			

FAA JRC Planning Status

Donna Whitlock

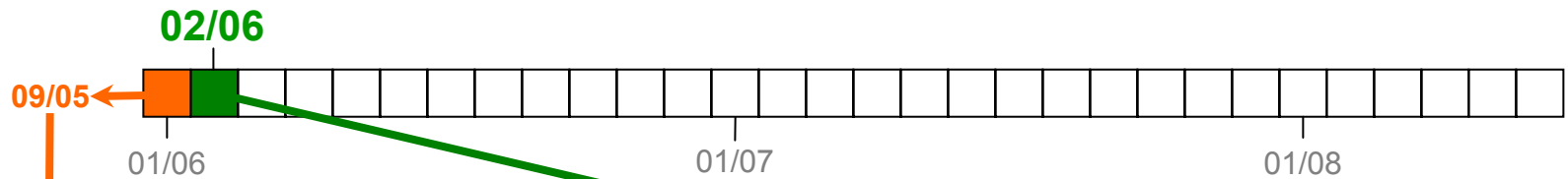
FAA JRC Planning Status Update

- The JRC makes corporate-level resource decisions, including authorization and funding for new investment programs, and approves investment resources.
- The JRC membership is comprised of the Lines of Business (LOBs) whose support is essential to the success of an investment program. These LOBs include the service organizations that operate or maintain the products as well as the functional disciplines of budget, safety, and legal counsel.
- Capstone obtained JRC approval for follow-on maintenance support for the Phase I and II ground infrastructure.
- Capstone is building the statewide implementation business case to present to the JRC in August 2006 that will provide FAA funding for installation and follow-on maintenance of the ground infrastructure
 - GBTs
 - FIS-B, TIS-B, and Operator Flight Monitoring Services (OFMS)
 - Automated Weather Services
 - Communications
 - Approach/departure procedure development
 - Automation upgrades if needed
- Avionics will be addressed as Capstone is working with the Alaska aviation industry to secure a combination of private and non-private funds (non-FAA) for avionics
- The business case addresses cost, schedule, benefits, and risk
 - Items that are needed to justify the FAA investment

WAAS Update

JoAnn Ford





Release 2

GEO Transfer from 54 W to 142 W

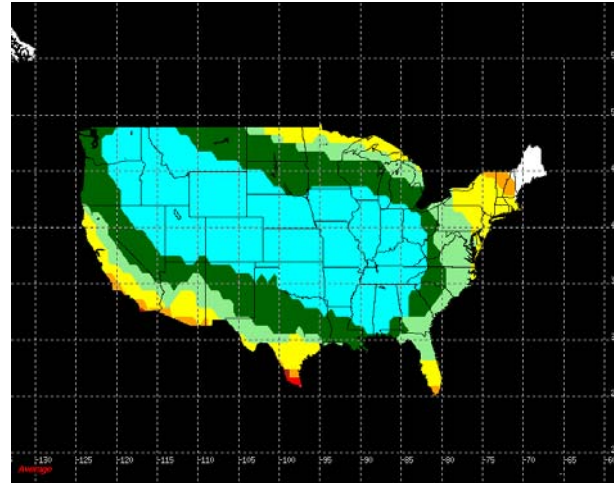
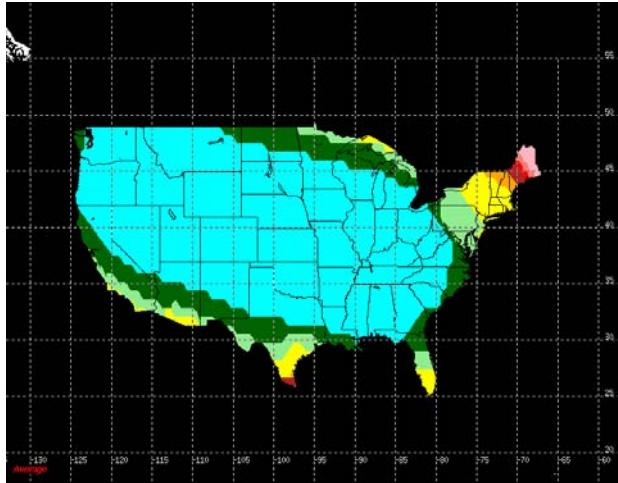
New changes (unrelated to release)

- 142 W GEO used only as a data-link

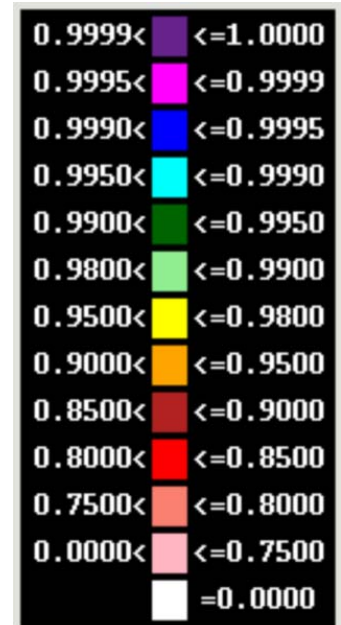
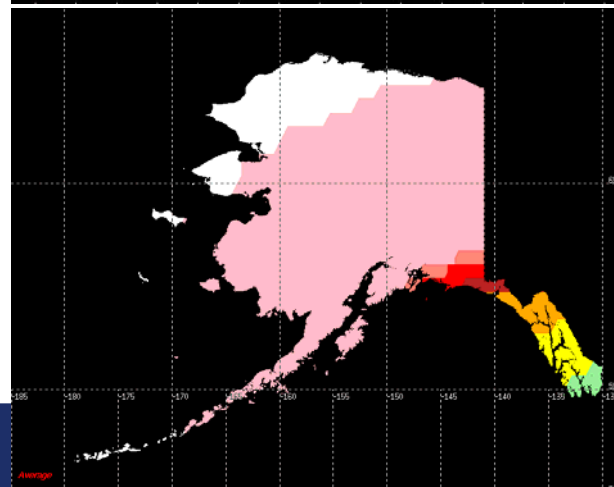
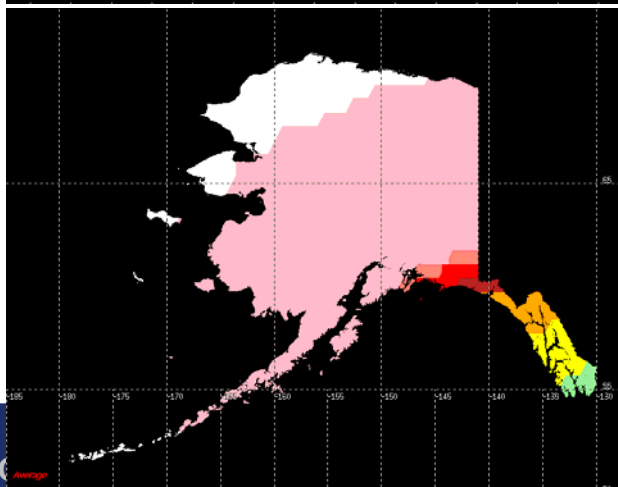
GEO LOCATIONS

- POR: 178 E (UDRE = 50 m)
- AOR-W: 142 W (UDRE = NM)

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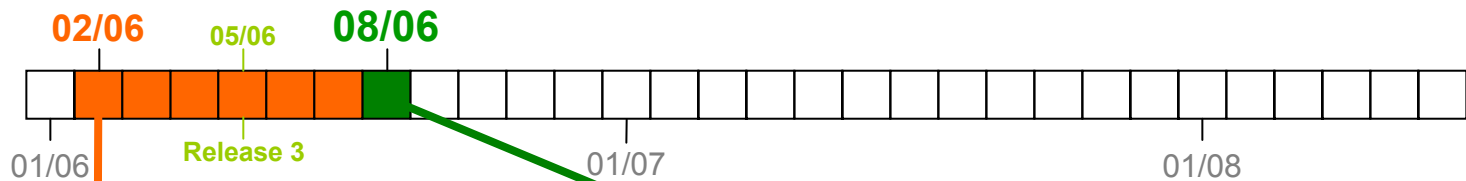
AVAILABILITY

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GEO Transfer from 54 W to 142 W

**** Release 4**

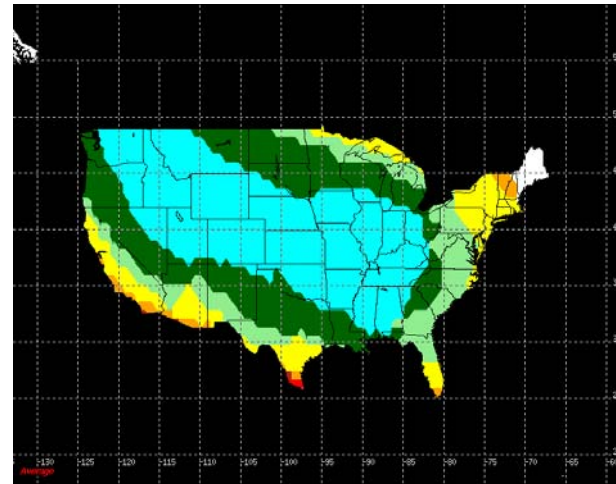
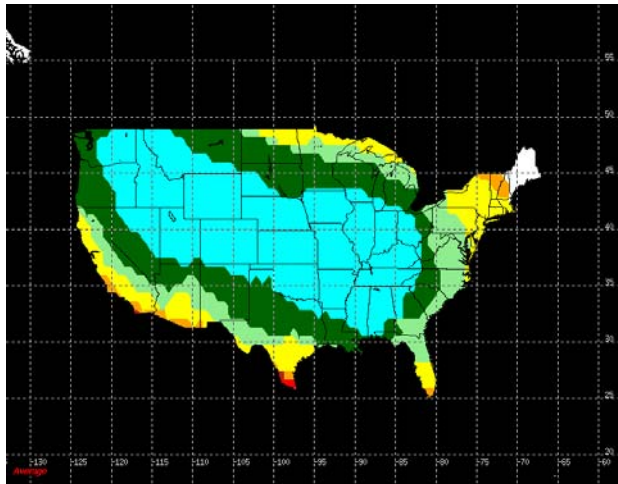
New changes in Release 4

- 4 additional WRS in Alaska

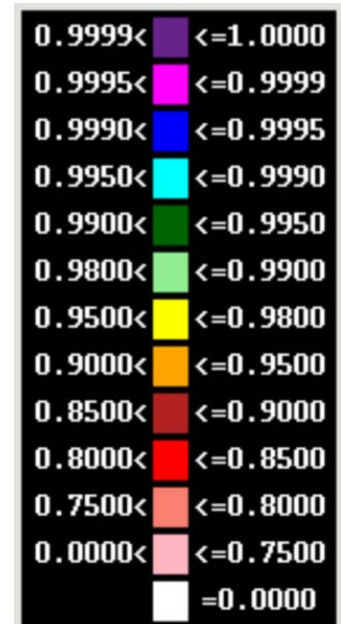
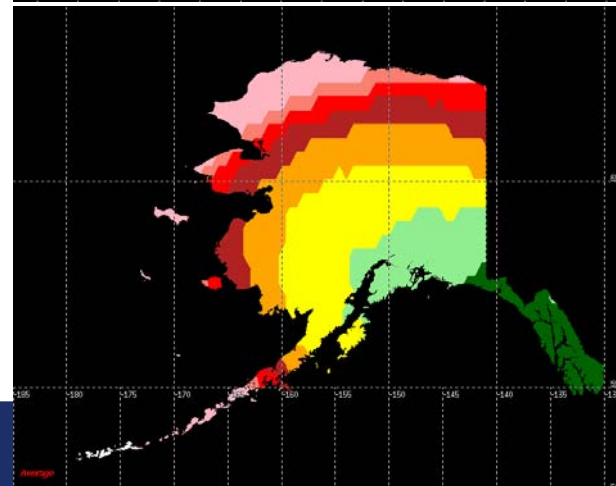
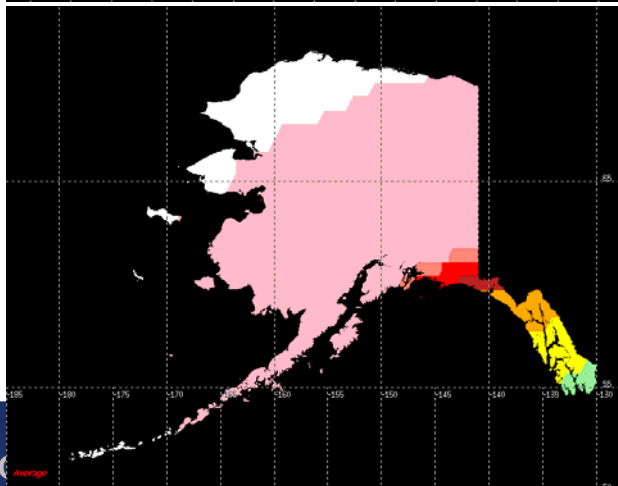
GEO LOCATIONS

- POR: 178 E (UDRE = 50 m)
- AOR-W: 142 W (UDRE = NM)

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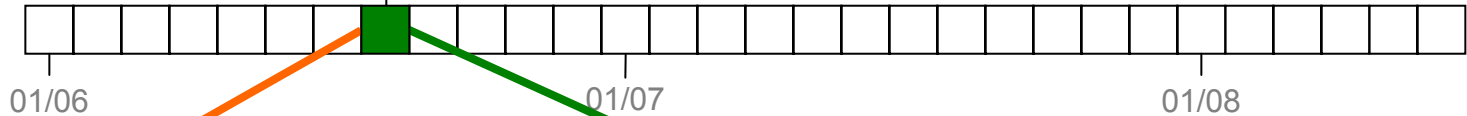
** No impact to availability in Release



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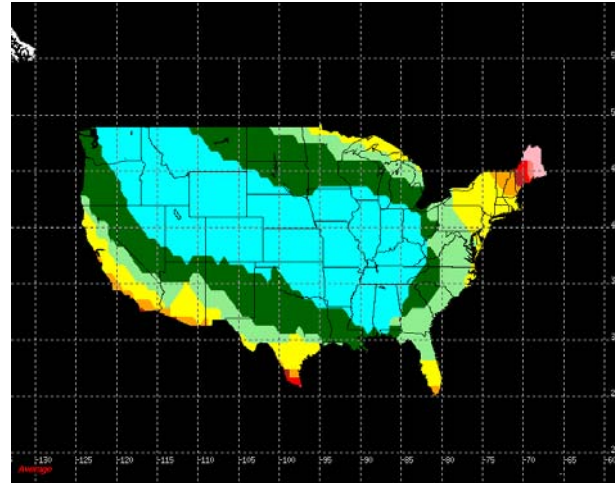
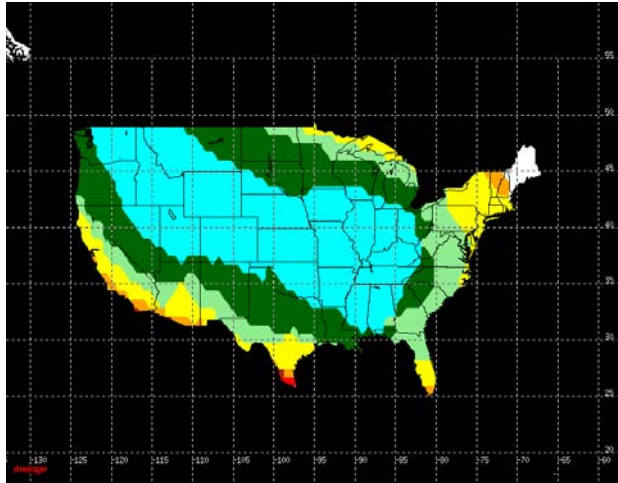
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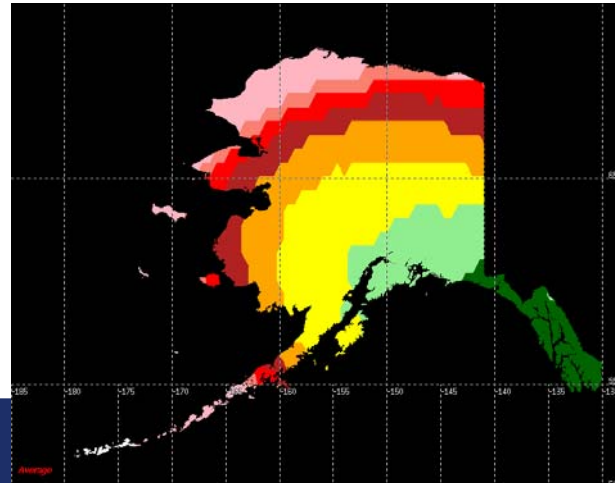
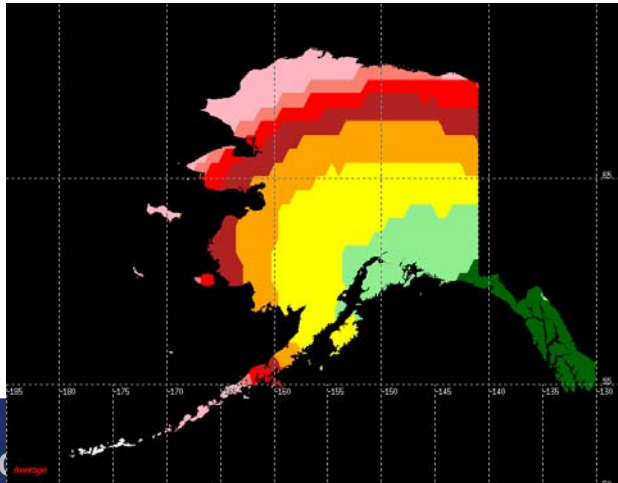
Release 4

Release 5a

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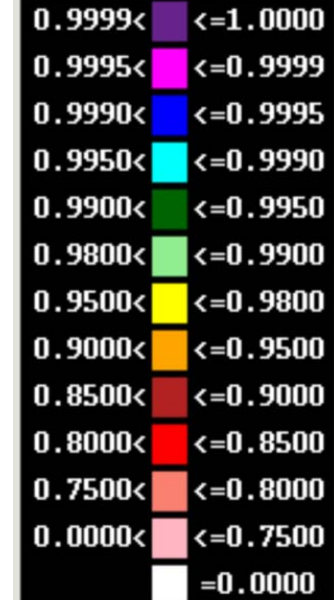


New changes in Release 5a

- 133 W GEO used only as a data-link

GEO LOCATIONS

- POR: 178 E (UDRE = 50 m)
- AOR-W: 142 W (UDRE = NM)
- Panamsat: 133 W (UDRE = NM)



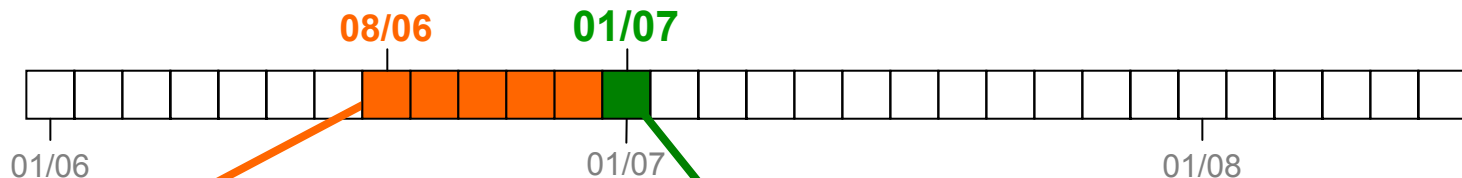
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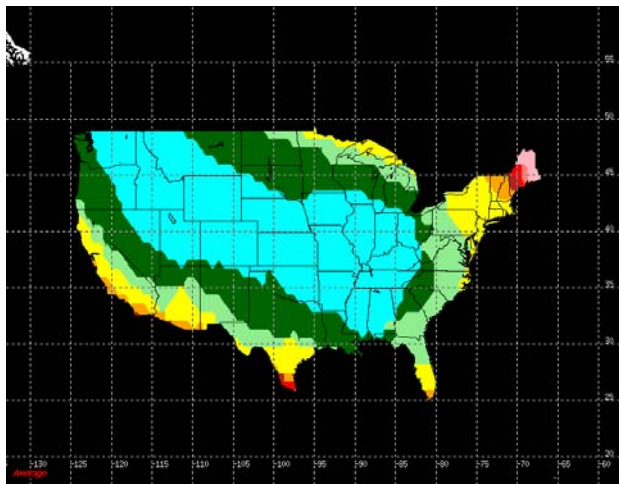
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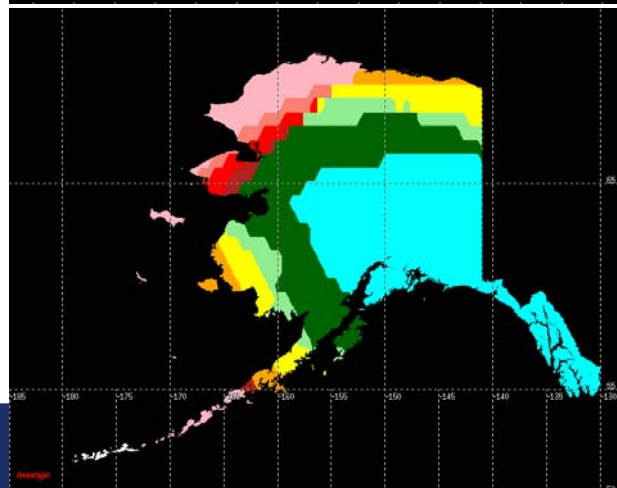
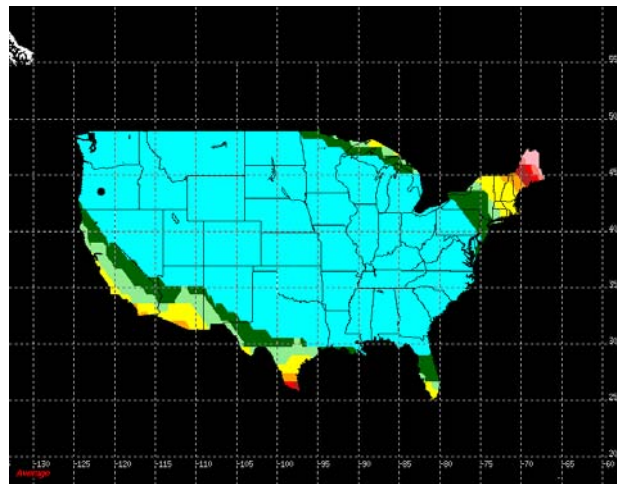
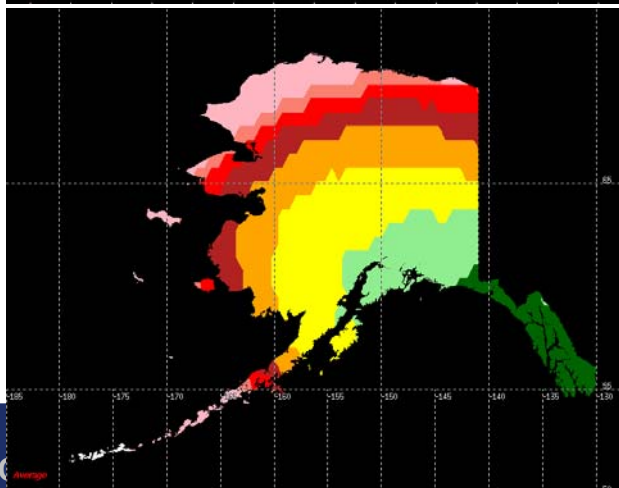
Release 5a

Release 5b

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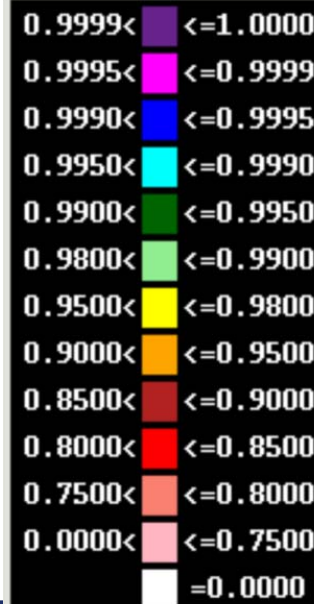


New changes in Release 5b

- 107 W GEO provides both data-link and ranging

GEO LOCATIONS

- POR: 178 E (UDRE = 50 m)
- AOR-W: 142 W (UDRE = NM)
- Panamsat: 133 W (UDRE = NM)
- Telesat: 107 W (UDRE = 4.5 m)

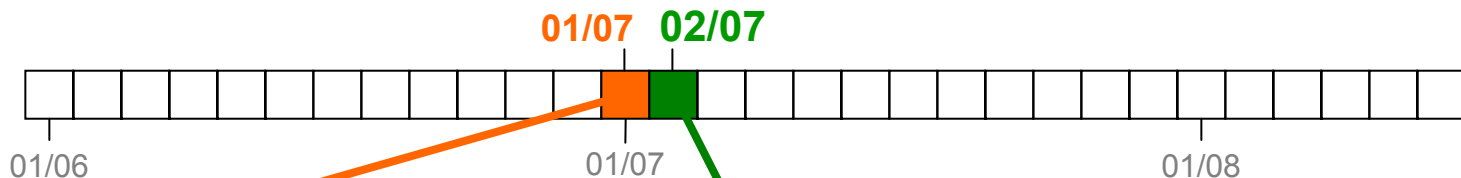


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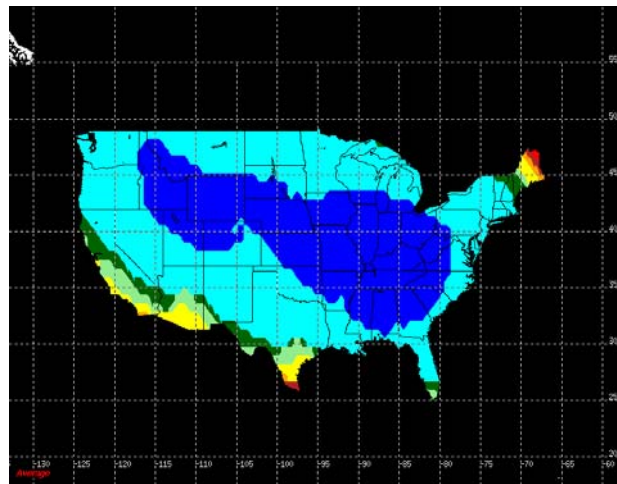
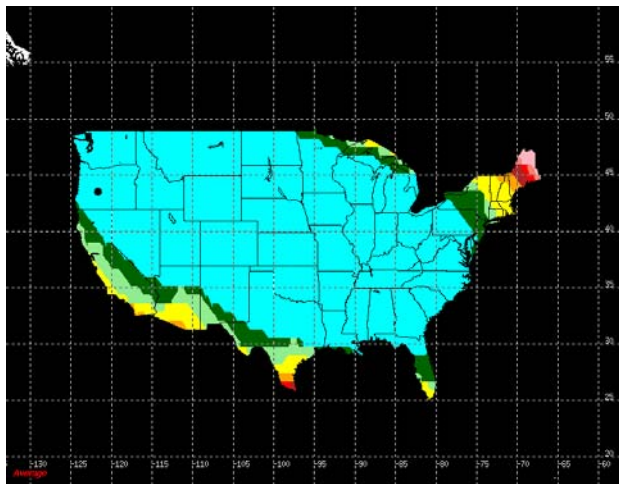
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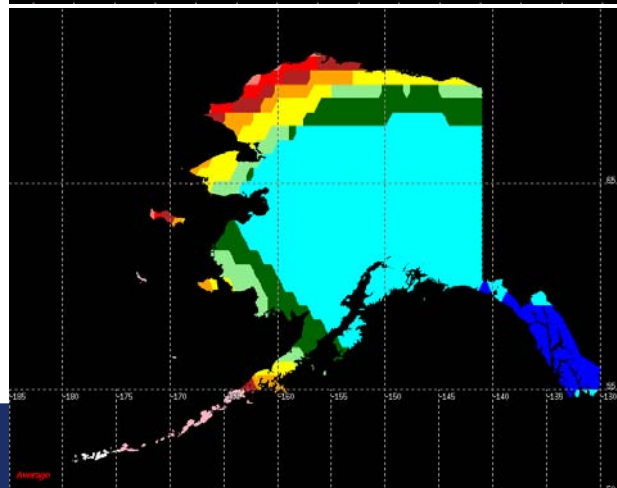
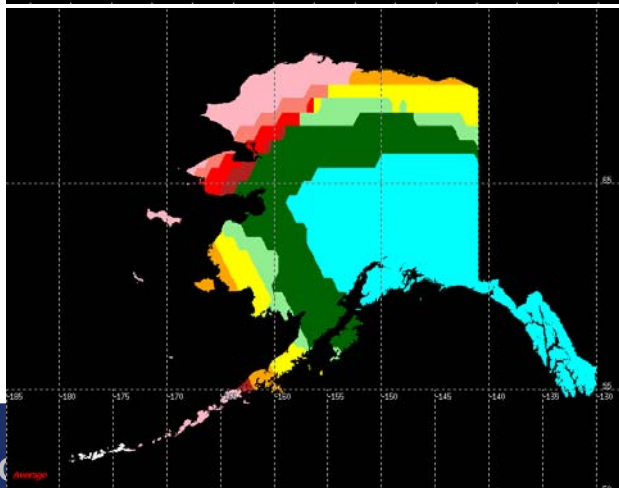
Release 5b

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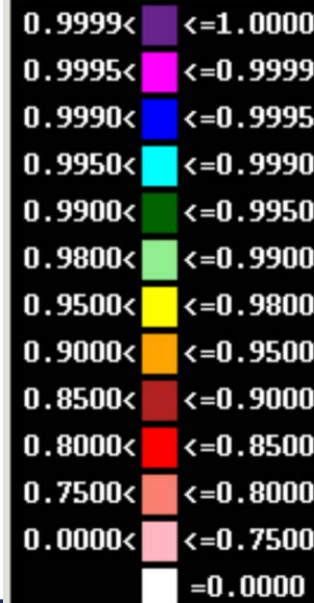


New changes in Release 5b

- 133 W GEO ranging is turned on

GEO LOCATIONS

- POR: 178 E (UDRE = 50 m)
- AOR-W: 142 W (UDRE = NM)
- Panamsat: 133 W (UDRE = **4.5 m**)
- Telesat: 107 W (UDRE = 4.5 m)

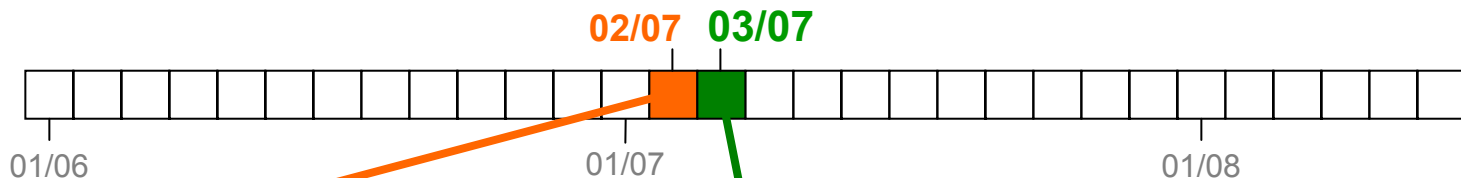


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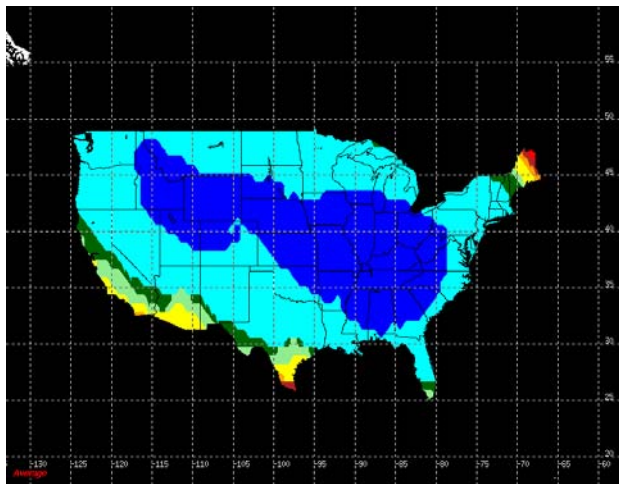
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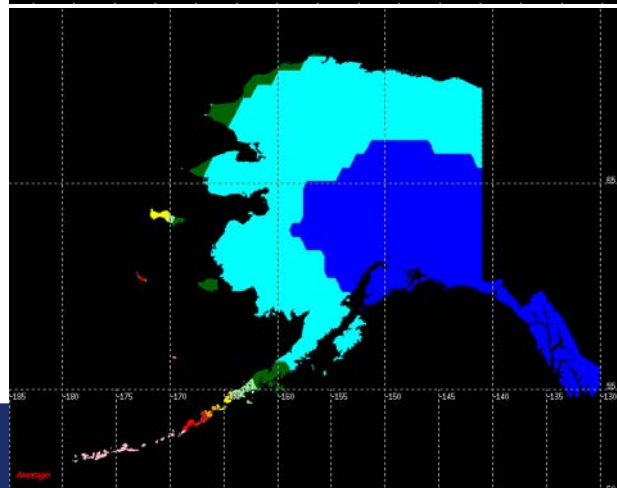
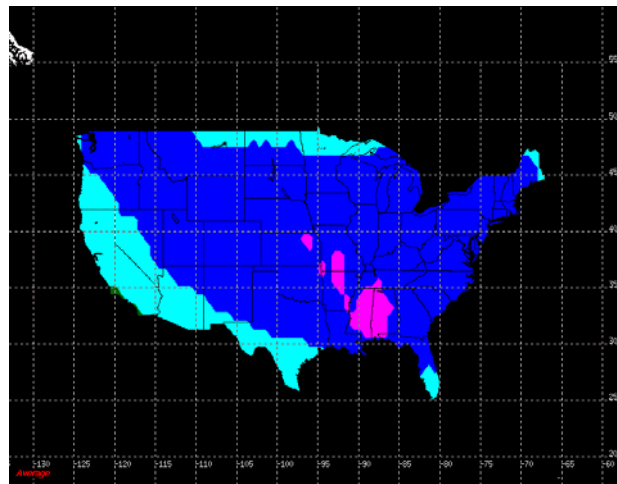
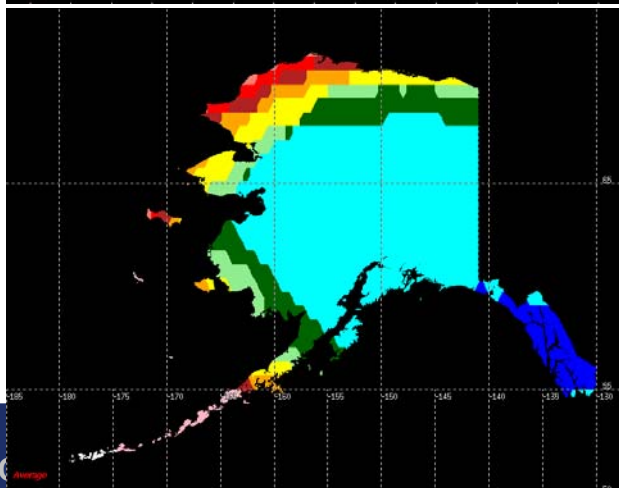
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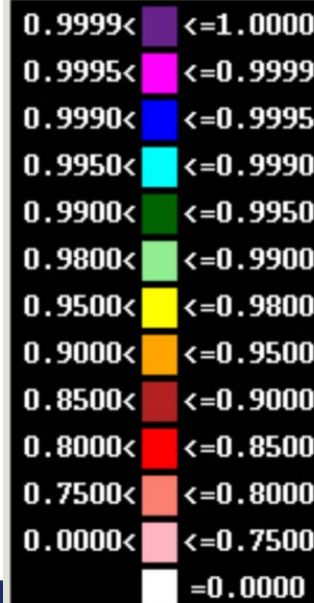


New changes in Release 6/7

- GIVE Monitor Upgrade (PB1)
- 2 New WRS in Canada
- 3 New WRS in Mexico
- Extended IGP Mask (incl. Band 9)

GEO LOCATIONS

- POR: 178 E (UDRE = 50 m)
- AOR-W: 142 W (UDRE = NM)
- Panamsat: 133 W (UDRE = 4.5 m)
- Telesat: 107 W (UDRE = 4.5 m)

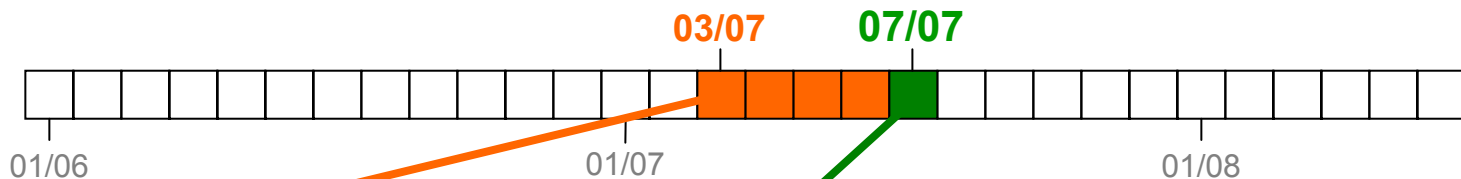


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Department of Justice
Federal Bureau of Investigation

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Release 6/7

POR and AOR-W shut-off

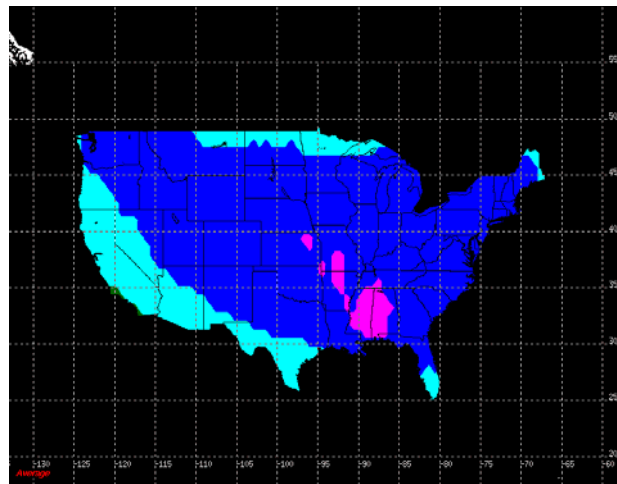
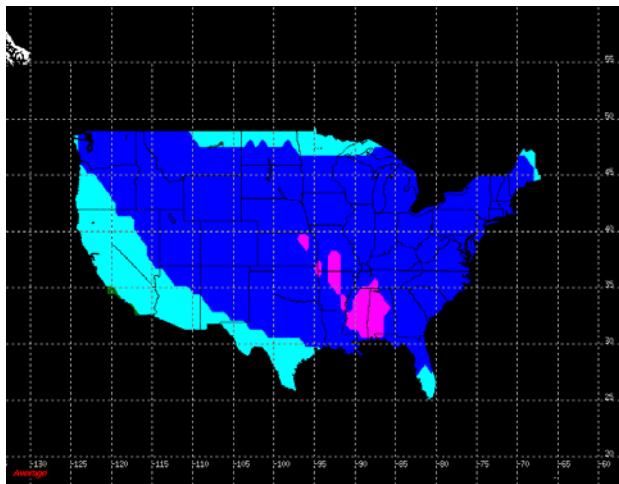
New changes (unrelated to release)

- 178 E GEO is turned off
- 142 W GEO is turned off

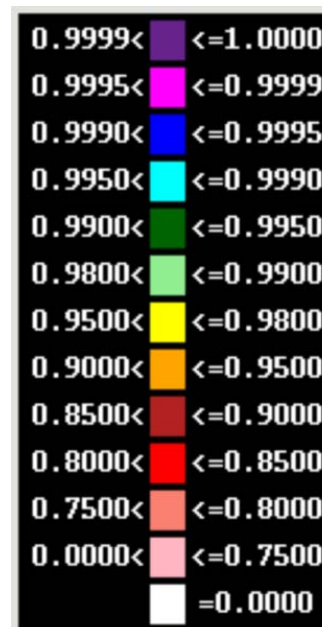
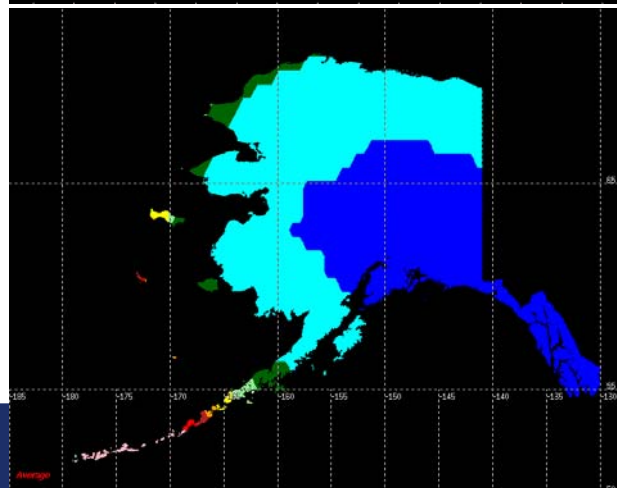
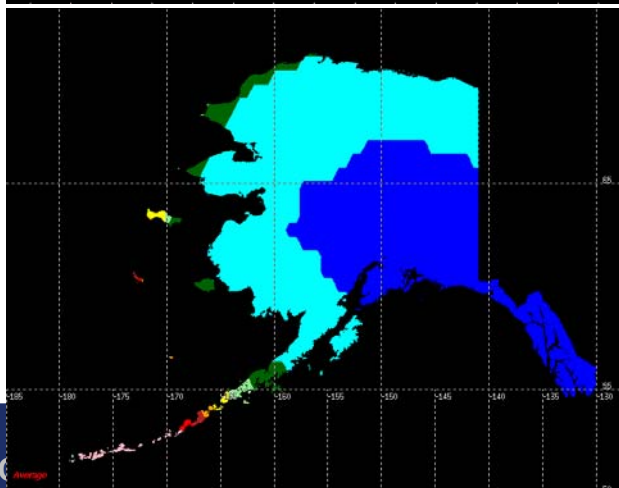
GEO LOCATIONS

- Panamsat: 133 W (UDRE = 4.5 m)
- Telesat: 107 W (UDRE = 4.5 m)

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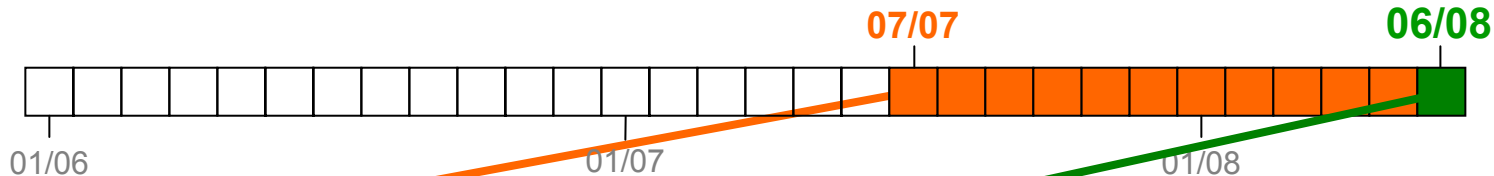
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POR and AOR-W shut-off

Release 8/9

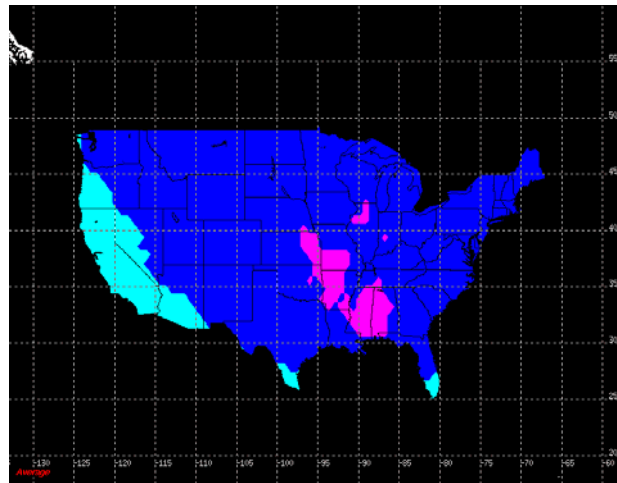
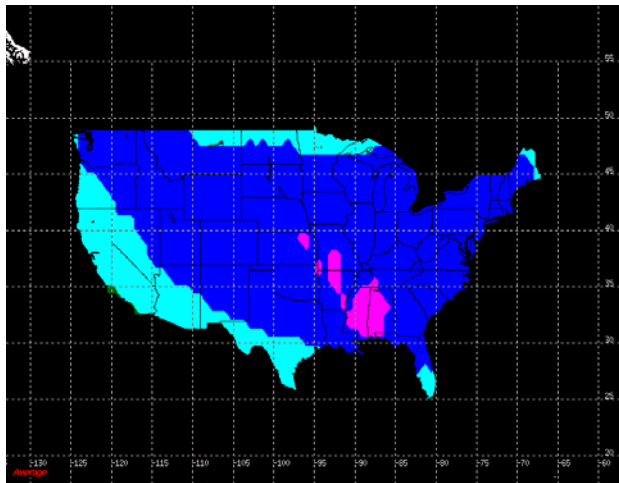
New changes in Release 8/9

- 2 additional WRS in Canada
- 2 additional WRS in Mexico

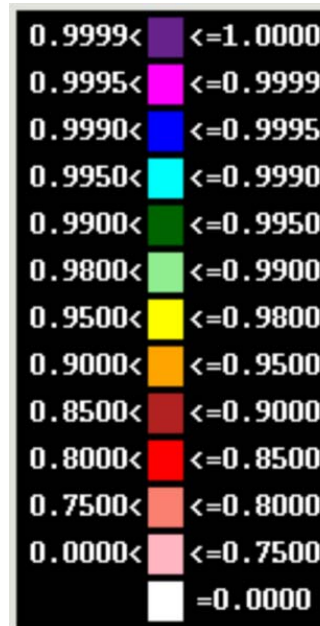
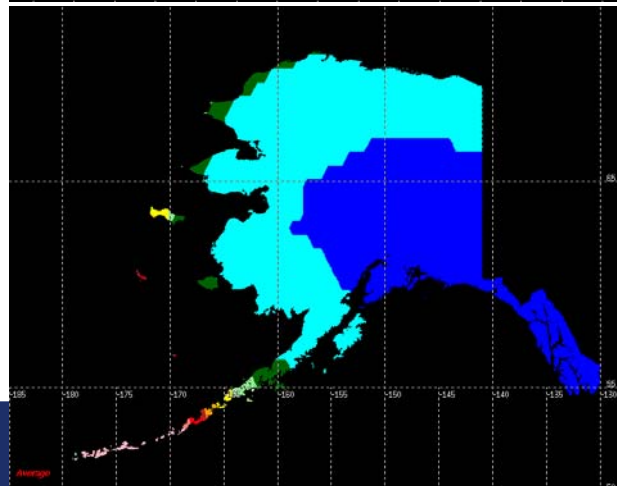
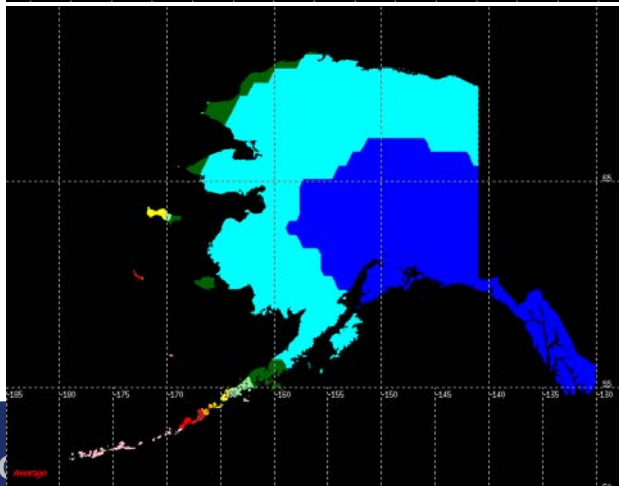
GEO LOCATIONS

- Panamsat: 133 W (UDRE = 4.5 m)
- Telesat: 107 W (UDRE = 4.5 m)

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Capstone Coalition Update

Sue Gardner (FAA co-chair)

Felix Maguire (Industry co-chair)